

REMARKS/ARGUMENTS

Claims 1-20, 36, 38-39, and 41-75 are canceled without prejudice and Applicants reserve the right to file one or more divisional applications for these canceled claims.

Claims 21-35, 37 and 40 are pending. Claims 21 and 37 have been amended to more particularly point out the invention. No new matter has been added.

Claims 21, 38 and 39 were rejected under 35 U.S.C. 112 as failing to comply with the written description requirement. Applicants respectfully request removal of this rejection because claims 38-39 are canceled and claim 21 has been amended to specify that the capture material comprises at least one filter or beads as supported by the specification as filed.

Claims 21-23, 31, 33-35, and 40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding et al. (US 5,955,029) in view of Buechler et al. (US 6,106,779) and Murphy et al. (US 5,374,522). Dependent claim 25 is presumed to be rejected on the same ground. Dependent claims 24 and 26 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding et al. in view of Buechler et al. and Murphy et al., and further in view of Nelson et al. (US 5,660,029). Dependent claims 27-29 and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding et al. in view of Buechler et al. and Murphy et al., and further in view of Carlin. Claim 28 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wilding et al. in view of Buechler et al. and Murphy et al., and further in view of Bersted et al. (US 6,129,879).

Applicants respectfully request reconsideration of the rejections in view of the following arguments.

Sole Independent Claim 21

Applicants respectfully submit that sole independent claim 21 is novel and patentable over Wilding, Buechler, and Murphy because, for instance, none of the references alone or in combination teach or suggest a device having a transducer coupled to the external surface of a wall of a lysing chamber containing at least one filter or beads for capturing the cells or viruses in a sample. Wilding, Buechler and Murphy all teach different devices.

In the primary reference of Wilding, a cell lysis chamber 22B has piercing protrusions 90 which tear open cells. The lysis chamber does not contain capture material for capturing the cells as sample fluid flows through the chamber 22B. Instead, cells are bound to a wall surface in a separate cell separation chamber 22A positioned upstream of the lysis chamber 22B. Wilding thus fails to teach or suggest the structure recited in claim 21. Murphy teaches cell lysis by submerging a container containing the cells in an ultrasound bath. Buechler teaches cell lysis by contacting the cells with a mesh whose surface has a lytic material. Thus, none of Wilding, Murphy, and Buechler teach a transducer coupled to an external surface of a lysing chamber wall for sonicating the chamber. Accordingly, the references taken along or in combination, fail to teach the device recited in claim 21.

Applicants' device as recited in claim 21 provides important advantages in concentrating cells to be lysed in a lysing chamber and effectively lysing the captured cells using a transducer coupled to a wall of the lysing chamber.

For at least the foregoing reasons, claim 21 and claims 22-35, 37 and 40 depending therefrom are patentable.

The double-patenting rejections in view of U.S. Patent No. 6,391,541

Applicants submit herewith a terminal disclaimer to overcome this rejection.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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